DOCUMENT RESUME

ED 274 147 FL 015 907

AUTHOR Plunkett, Gray; McKeever, Michael
TITLE A Relational Grammar Approach to Verb Agreement in Lakota.
PUB DATE 86
NOTE 18p.; In: Work Papers of the Summer Institute of Linguistics, Volume 30, 1986; see FL 015 901.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *American Indian Languages; Form Classes (Languages); *Grammar; Language Research; *Linguistic Theory; *Sentence Structure; *Structural Analysis (Linguistics); Uncommonly Taught Languages; *Verbs
IDENTIFIERS *Lakota (Language); *Relational Grammar

ABSTRACT

Verb agreement, rules, and their application in Lakota, a Siouan language, are examined in the framework of relational grammar. It is argued that certain relational grammar concepts, especially the notions of level and working 2, provide the necessary theoretical apparatus for formulating concise rules of verb agreement in Lakota. The rules account for all major transitive, ditransitive, and intransitive clause types. The analysis is also found to support the claim of previous research that the notion of working term-x is needed to state rules in the grammars of natural languages. Constructions analyzed include monostratal transitive clauses, intransitive clauses, reflexive clauses, double patient verbs, and 3-2 and Obl-2 advancements. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D. Derbyshire

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED274147

A RELATIONAL GRAMMAR APPROACH TO VERB AGREEMENT IN LAKOTA

Gray Plunkett and Michael McKeever

1 Introduction
2 Relational Grammar
3 Basic verb agreement in Lakota
4 Simple monostratal transitive clauses in Lakota
5 Agreement in intransitive clauses
6 Reflexive clauses
7 Double patient verbs
8 3-2 and Obl-2 advancements
9 The notion of working 2
10 Conclusion
Notes
References

1 Introduction

This paper examines verb agreement[1] rules and their application in Lakota, a Siouan language.[1] In particular, it explores how to best account for verb agreement in Lakota in a Relational Grammar framework. We will argue that certain concepts of Relational Grammar (RG), especially the notions of level and working 2, provide the necessary theoretical apparatus for formulating concise rules of verb agreement in Lakota. These rules account for all major transitive, ditransitive, and intransitive clause types. It also lends support to Perlmutter's claim that the notion of working term-x is needed to state rules in the grammars of natural language (Perlmutter 1982). We will also show the importance of disjunctive ordering in the grammars of natural languages.

In Sect. 2 of this paper we will give a brief introduction to Relational Grammar. In Sect. 3 we will show the two sets of verbal agreement markings and how they register on the verb. In Sect. 4 we consider simple monostratal transitive clauses in Lakota and present an initial hypothesis concerning their agreement. In Sect. 5 we present intransitive clauses and their effect on our initial hypothesis. Sect. 6 deals with reflexive clauses. In Sect. 7 we discuss 'double patient' verbs in Lakota and in Sect. 8 3-2 and Obl-2 Advancements. Sect. 9 introduces the notion of working 2 and its importance in formulating

FL 015 907

the final verb agreement rule for Lakota. Conclusions and implications are discussed in Sect. 10.

2 Relational Grammar

One of the primary goals of Relational Grammar is to construct adequate and insightful grammars for individual languages. A basic contention of Relational Grammar is that semantic roles such as Agent, Experiencer, Patient etc. are insufficient for this purpose. Instead, Relational Grammar claims that to do this primitive grammatical relations, such as 'subject of,' 'object of,' 'indirect object of,' etc. are needed. Although these are strictly primitives, the Universal Alignment Hypothesis does state that there is a loose connection between grammatical relations at an initial level (discussed below) and semantic roles (Perlmutter and Postal 1984:97). (It is at this point that semantics and syntax are related in RG.)

The following is a partial list of grammatical relations used in RG.

TERMS	ABBREVIATIONS
subject	1
direct object	2
indirect object	3
NONTERMS	
OBLIQUE	
Benefactive ("for")	Ben
Directional ("to")	Dir
Locative ("at", "in")	Loc
RETIREMENT	
Chomeur	Cho

The oblique relations closely correspond to the semantic roles of the same name. The Chomeur is the relation that a nominal bears when another nominal assumes its relation.

Rosen (1984:40) in discussing semantic roles and grammatical relations quotes a form of Perlmutter and Postal's Universal Alignment Hypothesis which states:

> There exists some set of universal principles on the basis of which, given the semantic representation of a clause, one can predict which initial GR each nominal bears.

Although Rosen argues against the above hypothesis as a universal in its present form, for the purpose of illustration let us show what some tentative predictions from this hypothesis might be.

(1) Agents, experiencers, and cognizers are (initial) 1s
Patients and stimuli are (initial) 2s.
Recipients and addressees are (initial) 3s.
Beneficiaries are (initial) Benefactives.
Instruments are (initial) Instrumentals.

In a sentence such as:

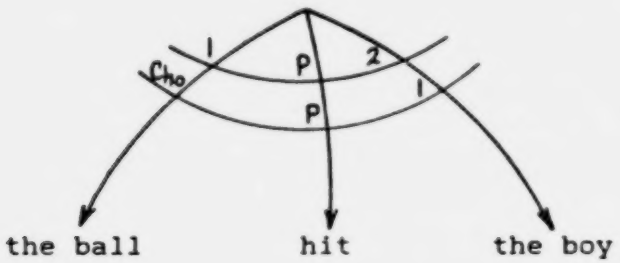
(2) The boy hit the ball.

The agent 'the boy' is the subject (or 1), the patient 'the ball' is a direct object (or a 2). These facts are correctly predicted by the principles in (1), yet in a sentence such as:

(3) The ball was hit by the boy.

the agent is not the subject and the patient is not the direct object. This sentence seems to counter the principles in (1). Yet this is not the case once a second important concept of Relational Grammar, the notion of levels, is taken into consideration. In RG a passive sentence such as (3) is analyzed as having two levels of syntactic structure, an initial level and a final level. In a stratal diagram sentence (3) would look like:

(4)



The diagram above says that 'the boy' heads a 1-arc in the initial level but in the final level it heads a chomeur (Cho). 'The ball' heads a 2-arc initially but a 1-arc finally. The verb 'hit' heads a P or predicate arc. (The order of constituents in a stratal diagram is inconsequential.) Note that this analysis does not violate the principles stated in (1). The stratal diagram in (4) represents a static relationship as opposed to the movements

posited for a passive transformation in a Transformational framework. By referring to grammatical relations at different levels, one can easily capture language particular generalizations about word order, pronominal case, verb agreement, etc. Thus, Relational Grammar employing grammatical relations and multiple syntactic levels has been shown to formulate insightful and adequate grammars in many diverse languages.

3 Basic verb agreement in Lakota

Verbs in Lakota indicate person agreement by prefixes and infixes. (There are also emphatic free standing pronouns. These forms will be used only for convenience to represent the nominals in diagrams.) We see two verbal agreement sets occurring on the verb plus a suffix **-b** to show plural. The subject agreement set is observed in the paradigm in (5) (of the verb **mani** 'walk').[2]

(5) Subject Agreement Set

ma-wa-ni	I walk
ma-ya-ni	you walk
ma-Ø-ni	he/she/it walks
ma-ų-ni	we (inc.) walk
ma-ų-ni-b	we (exc.) walk
ma-ya-ni-b	you (pl.) walk
ma-Ø-ni-b	they walk

Object agreement is observed in the paradigm in (6) (on the verb **apa** 'hit'):

(6)

a-Ø-ma-pa	he hit me.
a-Ø-ni-pa	he hit you.
a-Ø-Ø-pa	he hit him.
a-Ø-ų-pa-b[3]	he hit us (inc. & exc.).
a-Ø-ni-pa-b	he hit you (pl.).
a-Ø-wica-pa	he hit them.

We can now list the two agreement sets.

(7)

	Set I Subject	Set II Object
1S	**wa-**	**ma-**
2S	**ya-**	**ni-**
3S	**ø**	**ø**
1P	**u-**	**u-**
2P	**ya-**	**ni-**
3P	**ø**	**wiȡa-**

Several points should be made concerning the preceding paradigms. First, some verbs infix the agreement markers, while other verbs prefix agreement markers (ex. **wa-loȟ** 'I sing'). However, many cases of apparent infixing could be due to the presence of locative or verbal prefixes which precede agreement markers. Lakota has an extensive inventory of verbal prefixes requiring further study. These prefixes often trigger morphophonemic processes which can alter the agreement affixes. Such processes are beyond the scope of this paper.[4] Second, (5) shows that Lakota has an inclusive-exclusive distinction in the 1st person plural subject marked by the absence or presence of the plural morpheme **-ƀ**. Third, the 3rd person plural marker **wiȡa-** only appears with transitive verbs and only marks animate 3rd plural objects. Its use is slightly different from the rest of the Set II affixes.

4 Simple monostratal transitive clauses in Lakota

A look at simple transitive clauses reveals that Set I and II are used for subject and direct object agreement respectively. Example (8) shows this agreement.

(8) a-**ma-ya-ƥe**
hit-1S:II-2S:I-hit
'You hit me.'

When **wa-** and **ni-** would be expected together, a portmanteau morpheme **ȡi-** is used instead as in (9).

(9) **a-ȡi-ƥe**
hit-1:2-hit
/a+**wa+ni+ƥe**/
'I hit you.'

The plural marker **-ƀ** appears with all plural subjects (except for 1 plural inclusive) as well as with plural objects of 1st and 2nd person.

(10) he a-**ya**-**ƥa**-b
PRO:3S hit-2S:I-hit-PL
'You(pl.) hit him.'

(11) he a-**ni**-**ƥa**-b
PRO:3S hit-2P:II-hit-PL
'He hit you (pl.).'

wiƙa- appears with all animate 3rd person plural objects.

(12) hena a-**wiƙa**-**wa**-**ƥe**
PRO:3P hit-3P:II-1S:I-hit
'I hit them.'

(13) hena a-**wiƙa**-**ya**-**ƥ**-b
PRO:3P hit-3P:II-1S:I-hit-PL
'You(pl.) hit them.'

The order of the morphemes is significant and has the following relative order: **ų**-, **ma**-, **wiƙa**-, **ya**-, **wa**-, **ni**-. Examples of the application of this ordering are in (8), (12), (13) and the following examples.

(14) **ųk**-a-**ni**-**ƥa**-b
1P:I-hit-2:II-hit-PL
'We hit you (s. or pl.).'

(15) hena **ųk**-a-**wiƙa**-**ƥa**-b
PRO:3P 1P:I-hit-3P:II-hit-PL
'We hit them.'

Based on the above examples, verb agreement in Lakota could be expressed by the following statements:

(16) Nominals heading a 1-arc determine Set I agreement markers.

Nominals heading a 2-arc determine Set II agreement markers.

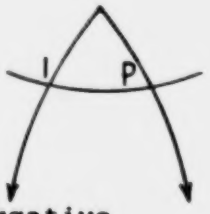
Since all the examples considered here involve only one syntactic level it is not possible to tell if the agreement is based on the initial or final level. In order to do this we will turn to a consideration of intransitive verbs.

5 Agreement in intransitive clauses

Within the framework of Relational Grammar it has been claimed that there are two kinds of intransitive verbs--those with an initial 1 (called unergative) and those

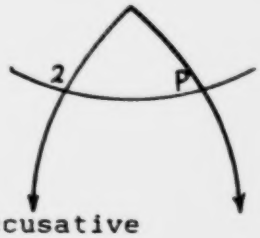
with an initial 2 but no initial 1 (called unaccusative). The initial strata for these verbs are represented in the following stratal diagrams in (17):

(17) a.



unergative

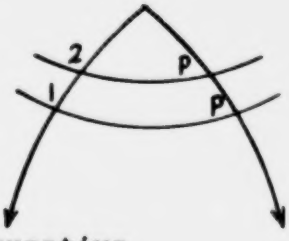
b.



unaccusative

The Final 1 Law proposed by Perlmutter and Postal (1983:100) posits that (17b) must have a 2-1 Advancement resulting in the following stratal diagram in (18):

(18)



unaccusative

Perlmutter and Postal's analysis of unaccusative verbs provides the theoretical apparatus one needs to state the verb agreement rules with greatest generality. In this section we will present how this analysis accounts for intransitive clauses in Lakota and how this information requires a further refinement of the verb agreement rule in (16).

A salient fact of Lakota is the existence of two groups of intransitive verbs which show different verb morphology. Perlmutter and Postal (1984:98-100) point out that Boas and Deloria's (1941) description of intransitive verbs (which take either Set I or Set II agreement markers) corresponds to their proposed categories of unergative and unaccusative verbs. The following data illustrates the two types of intransitive verbs in Lakota:

(19) **ya**-psi**ċ**a-**b**
2P:I-jump-PL
'You (pl.) jump.'

(20) **ma**-cuwita
1S:II-cold
'I'm cold.'

The verb in (19) takes a Set I agreement marker while the verb in (20) takes Set II. Based on semantics one would expect 'jump' to be an ergative verb and 'cold' to be unaccusative. According to rule (16), the unergative clause should take Set I agreement markers while the unaccusative clause should take Set II agreement markers. This fits the data in (19) and (20).

However, once the analysis presented in (18) for unaccusative verbs is adopted, the verb agreement rule stated in (16) is no longer explicit. The argument to the predicate in (20) bears both the subject and direct object relation to the clause but at different levels. Therefore the verb agreement rule must be modified to refer to level. The rule could be restated as follows:

(21) Initial 1s determine Set I agreement markers.

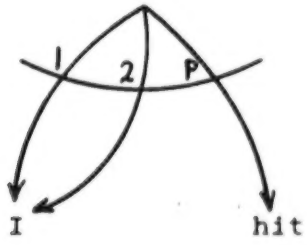
Initial 2s determine Set II agreement markers.

This generalization accounts for all the transitive and intransitive clauses considered so far.

6 Reflexive clauses

We will now consider a reflexive clause. Within the framework of RG, reflexive clauses are considered to be a case of multi-attachment. This means that at the initial level the single nominal heads both a 1- and a 2-arc as diagramed below.

(22)



'I hit myself'

Williamson (1979:357-359) has given evidence from restrictions on reflexivization in Lakota that the nominal

in a reflexive clause does head both a 1- and a 2-arc at the initial level. In Lakota the verbal affix **id'i-** indicates a reflexive. Consider now the reflexive clauses in (23) below.

(23) a. a-**m**-id'i-pa
hit-1S:II-REFL-hit
'I hit myself.'

b. a-**n**-id'i-pa
hit-2S:II-REFL-hit
'You hit yourself.'

It can be seen from the diagram in (22) that reflexives such as those in (23) have a nominal heading both an initial 1- and 2-arc. The verb agreement hypothesis as stated in (21) has no way of predicting whether one or both of the arcs will determine agreement for the nominal of a reflexive. We must have a way of specifying in our rule which arc is determining agreement.

We can see from the clauses in (23) that it is in fact only the 2-arc that is determining verbal agreement. To write a verbal agreement rule which handles reflexive constructions we must take into consideration disjunctive ordering in which, if a nominal fulfills two rules, only one applies.

In proposing disjunctive ordering of agreement rules we will follow Davies (1981:306) in saying that they are applied the same as phonological rules. For example, the French stress rule in (24) shows two disjunctively ordered rules.

(24) a. $V \rightarrow [+\text{stress}] / ____ \; C_0 \; \begin{matrix} V \\ [-\text{tense}] \end{matrix} \; \#$

b. $V \rightarrow [+\text{stress}] / ____ \; C_0 \; \#$

The rules are disjunctively ordered so that in case a single form satisfies both parts, only (24a) applies. This disjunctive ordering prevents ungrammatical forms from being generated. This is the type of ordering being proposed for Lakota agreement rules. The new verb agreement rule is now:

(25) a. Initial 2s determine Set II agreement markers.

b. Initial 1s determine Set I agreement markers.

Where (a) is disjunctively ordered with respect to (b).

7 Double patient verbs

There is a small set of verbs in Lakota which take two Set II agreement markers. Boas and Deloria (1941:76-77) call these neutral (stative) verbs with two objects. They state that certain neutral verbs implying comparison may take two object agreement markers. Williamson (1979:359) refers to these as 'Double Patient' verbs. The following shows six examples which take 'Double Patients.'[6]

(26) i-**ma-ni-**ʤteʤe
ashamed-1S:II-2S:II-ashamed
'You are ashamed of me.'

(27) iye-**ni-ma-**ʤeca
resemble-2S:II-1S:II-resemble
'I resemble you.'

(28) hena iye-**wiʤa-ma-**ʤeca
PRO:3P resemble-3P:II-1S:II-resemble
'I resemble them.'

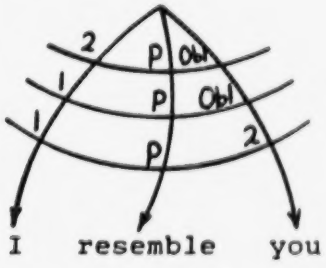
(29) iyo-**ni-ma-**kpi
happy-2S:II-1S:II-happy
'I am happy about you.'

(30) i-**ni-ma-**skola
small-2S:II-1S:II-small
'I am as small as you.'

An analysis of these clauses based on the verb agreement rule in (25) would require that both nominals are initial 2s. However, this would be a violation of the Stratal Uniqueness Law of Perlmutter and Postal (1983:92) which claims that two nominals cannot bear the same term relation in a given stratum.

A more plausible analysis for these clauses, based on Williamson (1979:361), is presented below by the stratal diagram in (31).

(31)



Williamson argues, based on the Universal Alignment Hypothesis, that most of the verbs which take this construction are represented in English by verbs which take obliques. Taking into consideration this analysis, a verb agreement rule which would account for 'double patient' clauses as well as those previously considered could be the following:

(32) a. Nominals heading a 2-arc determine Set II agreement markers.

b. Nominals heading a 1-arc determine Set I agreement markers.

Where (a) is disjunctively ordered with respect to (b).

The phrase 'nominals heading an x-arc' refers to all nominals which bear the x-relation at some level. Such a generalization would work for the analysis in (31) since the two nominals each head a 2-arc and thus would take Set II agreement markers. However, a problem arises with this analysis when we consider 3-2 and Oblique-2 Advancements in Lakota.

8 3-2 and Obl-2 advancements

Certain advancements to 2 are obligatory in Lakota. They are shown by the fact that the verb shows agreement with the initial 3 or some initial oblique. The following clauses show clear cases of 3-2 and Obl-2 Advancements in Lakota.

(33) **ʤuka wą ma**-k'u
dog INDF 1S:II-give
'He gives me a dog.'

(34) **iyą** ki **ma-ya**-k'u
rock DEF 1S:II-2S:I-give
'You give me the rock.'

(35) he **ʤuka wą u**-kipazo-**b**
PRO:3S dog INDF 1EXC:II-show-PL
'He showed us (exc.) a dog.'

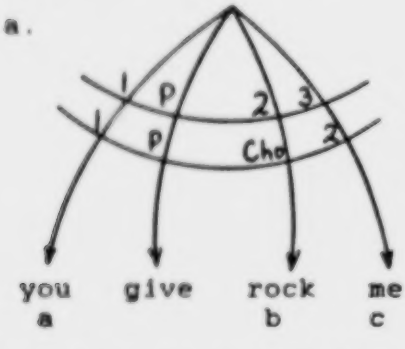
(36) he wo-**ni-ʤ**iyake
PRO:3S UO-2S:II-talk
'He talks to you.'

(37) **ʤuka wą ope-di-ʤato**
dog INDF buy-1:2-buy
'I bought you a dog.'

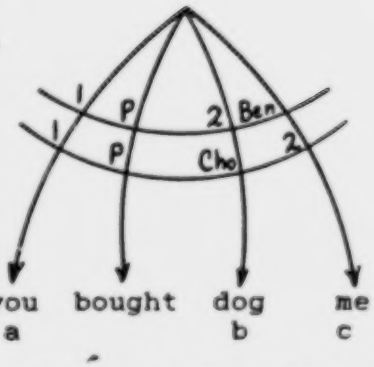
(38) **ʤuka wą ope-ma-ya-ʤato**
dog INDF buy-1S:II-2S:I-buy
'You bought me a dog.'

The analysis of (34) & (35) would be:

(39) a.



b.



According to rule (32) nominal **a** should determine Set I agreement and nominal **c** Set II. This is exactly what happens in (34) and (35). However, rule (32) would also predict that nominal **b** would show Set II agreement since it also heads a 2-arc. The following clause shows that nominal **b** does not show Set II agreement:

(40) * he **ma-ni**-kipazo
PRO:3S 1S:II-2S:II-show
'He showed you to me.'

Instead the correct form is:

(41) he niye **ma**-kipazo
PRO:3S PRO:2S 1S:II-show
'He showed you to me.'

Examples (40) and (41) show that the 2nd person initial 2 does not show agreement with the verb with Set II markers but instead must be an independent pronoun. (For a discussion of independent pronouns in Lakota see Boas and Deloria (1941:78).) It appears from this example that final nominals which are 2-chomeurs do not determine verb agreement in Lakota. The following example lends support to this hypothesis:

(42) he niye **wa**-kipazo
PRO:3S PRO:2S 1S:I-show
'I showed you to him.'

In (42) 'you' is an initial 2 but a final 2-chomeur. The verb does not show verb agreement with this nominal. Instead the verb is showing agreement with the nominal heading a 1-arc ('me') and the nominal 'he' which is a final 2. Since the final 2 is 3rd person singular in (42) there is no overt marking on the verb for the final 2.

Thus any verb agreement rule must exclude 2-chomeurs. This rules out the use of the phrase 'heading a 2-arc', since all 2-chomeurs are 2s at a previous level.

Another possible category would be acting 2. Perlmutter (1982) defines the notion of acting term on page 307 of his article. The term acting 2, for example, groups together final 2s and final 2-chomeurs. It would, therefore, not be useful in stating verb agreement in Lakota for the same reason as the notion of heading a 2-arc. It would also not work for unaccusative clauses since they do not contain acting 2s.

9 The notion of working 2

Perlmutter (1982:314) defines the notion of working term-x as being a nominal which heads a term-x-arc and bears a term relation in the final stratum. By definition this rules out all 2-chomeurs as working 2s. The notion of working 2 allows the formulation of the following verb agreement rule for Lakota:

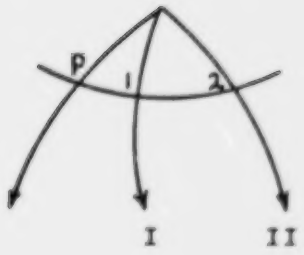
(43) a. Working 2s determine Set II agreement markers.

b. Nominals heading a 1-arc determine Set I agreement markers.

Where (a) is disjunctively ordered with respect to (b).

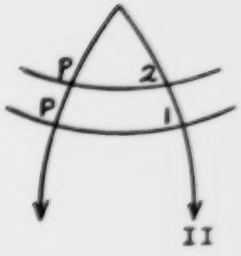
This rule accounts for the proper agreement markers for all the clause types and analyses proposed so far. The following schematically represents the data presented in this paper:

(44) a.

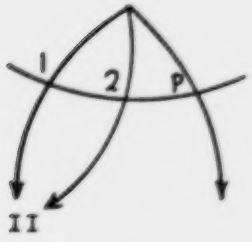


b.

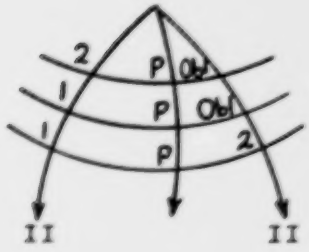
c.



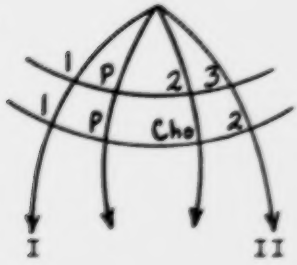
d.



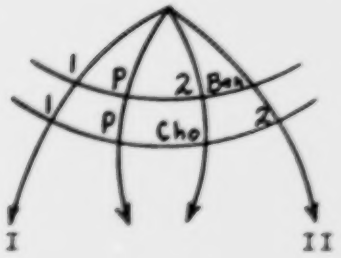
e.



f.



g.



In the above stratal diagrams all working 2s take Set II agreement markers. No other generalization would account for the varied cases where Set II agreement markers appear. There is no evidence in the data presented thus far which specifies at which level Set I agreement markers are determined.

10 Conclusion

Rule (43) is a satisfactory verb agreement rule for Lakota. It accounts for the use of Set I and Set II agreement markers in a wide variety of data and constructions. It accounts for all transitive and intransitive, single level and multilevel, and single attachment and multi-attachment clauses. It also seems to account for seemingly irregular registration such as 'double patient' clauses.

Disjunctive rule application is a topic of current interest in the field of inflectional morphology. Davies (1981:324) has hypothesized that disjunctive rule application of agreement rules is a universal principle. He states, "Given a set of agreement rules making a predicate agree with the same properties a, b....n of nominal, the rules apply disjunctively." It is interesting to note that recent work done by Steve Willson (1985)in Burushaski, a Pakistani language has produced evidence to counter Davies' view of disjunctive application as a universal principle. While disjunctive ordering may not prove to be a universal principle for instances in which a nominal satisfies the requirements of two separate rules, it seems crucial to account for verb agreement in Lakota.

This study has shown the value of the RG concepts of syntactic levels. It has especially given support to Perlmutter's claim that the notion of working term-x should be available in formulating concise rules in the grammar of languages. Further investigation is needed into other syntactic constructions of Lakota, especially clause union, to substantiate the viability of rule (43). However, this is a start at a working generalization for determining verb agreement in Lakota. The framework of Relational Grammar has provided a means for making simple, concise rule statements and analyses for some seemingly complicated agreement data.

Notes

1. Lakota is a dialect of Dakota-Sioux, belonging to the Siouan language family of North and South Dakota, Nebraska, Minnesota and Canada. Dakota-Sioux is spoken by about 25,000 people. The data contained in this paper comes from Walter Taken Alive from Standing Rock Reservation, South Dakota and Bert McBride originally from Crow Creek Reservation, South Dakota during the summer session of the

Summer Institute of Linguistics at the University of North Dakota in 1985.

2. The following abbreviations will be used in this paper: 1S=1st person singular, 2S=2nd person singular, 3S=3rd person singular, 1P=1st person plural, 2P=2nd person plural, 3P=3rd person plural, 1:2=1st person subject:2nd person object, I=Set I, II=Set II, INC=inclusive, EXC=exclusive, DEF=definite article, INDF=indefinite article, PL=plural marker, PRO=pronoun, REFL=reflexive, and UO=unspecified object.

3. A variant of this form is **ųk-a-ƥa-b**. It appears that only **ų/ųk** can show this alteration in the placement of the affix.

4. Another very common morphophonemic change occurs with y-initial verbs in 1st and 2nd person which would appear to be an exception to the two set generalization. There is evidence that only active y-initial verbs that would normally take Set I undergo a morphophonemic change while Set II verbs do not undergo such a change. These and other morphophonemic processes will not be dealt with in this paper.

5. Rosen (1984) argues that Lakota provides evidence that a purely semantic account for the differences between unergative and unaccusative clauses is not adequate.

6. Since both agreement markers are from Set II, the ordering hierarchy of morphemes is replaced by a rule that requires the morpheme showing agreement with the initial subject to go last.

References

Boas, Franz and Deloria, Ella. 1941. Dakota Grammar. Washington: U.S. Government Printing Office.

Davies, William. 1981. Choctaw Clause Structure. Phd. Dissertation. San Diego: University of San Diego.

Perlmutter, David M. 1980. Relational Grammar. In Syntax and Semantics 13: Current Approaches to Syntax. E. Moravcsik and J. Wirth, eds. New York: Academic Press.

----------. 1982. Syntactic representations, syntactic levels, and the notion of subject. In The Nature of

Syntactic Representation. P. Jacobson and G. Pullum, eds. Dordrecht and Boston: D. Reidel Publishing Company.

Perlmutter, David M. and Postal, Paul M. 1983. Some proposed laws of basic clause structure. In Studies in Relational Grammar 1. David Perlmutter, ed. Chicago: University of Chicago Press. 81-128.

----------. 1984. The 1-Advancement Exclusiveness Law. In Studies in Relational Grammar 2. David Perlmutter and Carol Rosen, eds. Chicago: University of Chicago Press. 81-125.

Rosen, Carol G. 1984. The interface between semantic roles and initial grammatical relations. In Studies in Relational Grammar 2. David Perlmutter and Carol Rosen, eds. Chicago: University of Chicago Press. 38-77

Williamson, Janis. 1979. Patient marking in Lakhota and the Unaccusative Hypothesis. In Papers from the Fifteenth Regional Meeting of the Chicago Linguistic Society. Chicago: University of Chicago. 353-365.

Willson, Steve. 1985. Verb Agreement and Case Marking in Burushaski. MS.